REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Claims 1-9 have been cancelled without prejudice and rewritten as new claims 10-27 to more particularly point out and distinctly claim the subject matter of this invention according to the description of the invention set forth in the specification.

Specifically, new claim 10 is directed to the coated metal plate of this invention, and is supported by original claims 1 and 2 and the teachings of the specification, for example at page 3, lines 1-5.

Claims 11 and 12 correspond to original claim 3. Claims 13 and 14 correspond to original claim 4. Claims 15 and 16 correspond to original claim 5. Claims 17 and 18 correspond to original claims 6 and 7, respectively. Claims 19 and 20 correspond to original claim 8. Claim 21 is supported at page 3, lines 17-29 of the specification. Claim 22 is directed to the coated metal plate of this invention. Claims 23 and 24 correspond to original claim 9. Claims 25 and 26 are supported by the specification, for example at page 1, lines 9-10. Claim 27 is supported by original claims 1 and 2 and the teachings of the specification for example at page 3, lines 1-5 and page 9, lines 4-17.

Turning to the Official Action, claims 3 and 8 were rejected under 35 USC 112, second paragraph, as being indefinite for the reasons set forth.

This ground of rejection is deemed to be overcome by the cancellation of former claims 3 and 8 and the presentation of new claims 11-12 and 19-20.

Claims 1-9 were further rejected under 35 USC 102 and 35 USC 103 based upon Matsuo et al., Palaika et al., and Matoba et al., as set forth in items 4-5 and 7-8 of the Action. These grounds of rejection are respectfully traversed as applied to the new claims.

As is now more apparent from the new claims presented, the coated metal plate of the present invention comprises a metal plate, a preformed conductive plastic film or sheet, and an electrodeposition film. The coated metal plate of this invention is useful as an outer panel for automobile bodies or electrical appliances.

In the prior art, a metal plate has often been coated with a multi-layer coating film which is formed by the application of an electrodeposition paint, an intermediate paint and a top coating paint in this order. Such a multi-layer coating film is composed of paints alone, one applied on top of another, and, therefore, a large amount of VOC (volatile organic compounds) such as organic solvents and low molecular materials which are contained in the paints volatilize into the air during the coating process and the film-baking process, which is undesirable from the viewpoint of anti-pollution measures.

In the coated metal plate of the present invention, a conductive plastic film or sheet is preformed and the applied to the metal surface by pressing or adhesion, therefore, the application of a liquid paint layer can be omitted, which not only simplifies the application process but also remarkably reduces the amount of VOC.

Matsuo et al. (USP 5,190,830), on the other hand, disclose that:

"a shaped or unshaped article of a non-ferrous metal sheet preferably aluminum having an organic, surface coating film containing conductive and/or semiconductive fine particles is integrally bonded with a shaped or unshaped article of a steel sheet having or not having an organic, surface coating film; and this integrated body is subjected simultaneously to electrodeposition coating."

In Matsuo et al., however, the organic, surface coating film containing conductive and/or semiconductive fine particles which is formed on the surface of a non-ferrous metal before electrodeposition coating is formed by the application of a liquid coating composition which comprises said particles, organic resin for dispersion and organic solvent (column 2, line 63 to column 3, line 59). Furthermore, the organic, surface coating film with which a steel sheet may be coated is formed by the application of a liquid coating composition such as an epoxy resin coating composition which contains a large amount of zinc powders (column 4, lines 31-42).

Thus, in Matsuo et al., the organic, surface coating film with which a non-ferrous metal is coated and the organic, surface coating film with which a steel sheet may be coated are each formed by the application of a liquid coating composition. Hence, Matsuo et al. neither teach nor suggest the idea of adhering or pressing a preformed conductive plastic film or sheet at least on

one surface of a metal plate, and, then, electrodepositing an electrodeposition paint on the surface of the film or sheet. In this regard, the present invention should definitely be distinguished from Matsuo et al. Owing to the foregoing feature, the present invention produces an effect of simplifying the application process and remarkably reducing the amount of VOC.

Such being the case, it is clear that the present invention is neither anticipated by, nor obvious over, Matsuo et al.

Palaika et al. (USP 6,248,225) disclose a process for applying two electrodeposited coatings, one on top of the other, to an electrically conductive substrate.

However, Palaika et al. also neither teach nor suggest the idea of adhering or pressing a preformed conductive plastic film or sheet on a surface of a metal plate, and, then, electrodepositing an electrodeposition paint on the surface of the film or sheet. In this regard, the present invention is clearly distinguishable from Palaika et al.

Accordingly, the present invention is neither anticipated by, nor obvious over, Palaika et al.

Matoba et al. (USP 4,789,568) disclose a paint which comprises, as main components, a modified polyolefin resin and an organic solvent (claim 1) and the idea of applying this paint, as a primer, on a plastic material, and, after applying an intermediate paint if necessary, applying a top coating paint (claim 14). Matoba et al. further mention that, when a paint which comprises, as main components, a modified polyolefin resin and an organic solvent contains electrically conductive powders in such a manner that the resultant coating film may have a volume inherent resistivity of not more than 10 $\Omega \cdot$cm, it becomes possible to easily apply an electrostatic coating on the resultant coated surface.

However, it is clear that Matoba et al. also do not teach or suggest the claimed invention.

In view of the foregoing, it is respectfully submitted that the cited references, individually and in combination, do not teach or suggest the present invention, which is directed to a coated metal plate, comprising a metal plate, having a preformed conductive plastic film or sheet adhered or pressed thereon, and an electrodeposition film. The coated metal plate the present invention has the following advantages:

(1) An intermediate liquid paint layer can be omitted, so that the coating steps can be shortened and the amount of volatile organic compounds may be reduced.

(2) The coated metal plate is coated directly with the plastic and therefore is improved notably in chipping resistance as compared with a coated metal plate produced by liquid paint coating compositions and/or electrodeposition coating compositions.

(3) The electrodeposition film which is coated on the plastic coated surface has an excellent flatness and therefore the surface of the top coated film formed on the electrodeposition film is improved.

Favorable reconsideration and allowance is accordingly solicited.

Respectfully submitted,

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